Exhibit 8

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

T-Mobile USA, Inc., AT&T Services Inc., AT&T Mobility LLC, AT&T Corporation, Cellco Partnership d/b/a Verizon Wireless, Nokia of America Corporation, Ericsson Inc.
Petitioners

v.

Cobblestone Wireless LLC
Patent Owner

Case IPR2024-00136
Patent 8,891,347

DECLARATION OF JAMES A. PROCTOR IN SUPPORT OF PETITION FOR INTER PARTES REVIEW OF UNITED STATES PATENT NO. 8,891,347

obtained from performing channel estimation on a reference signal and subsequently provided to the eNodeB by the UE as either implicit or explicit feedback corresponds with the claimed "path parameter information." Furthermore, under the Patent Owner's apparent interpretation of the claims, based on Sesia's disclosure, a POSITA would understand that this information is "path parameter information of the first propagation path" given that channel estimation attempts to define the channel model of a propagation path.

136. In Patent Owner's infringement contentions (Exs. 1006, 1009, 1010), Patent Owner identified the "path parameter information" as channel state information measured from the CSI-RS. As discussed above, Sesia discloses the same measurements for the same reference signal.

137. Thus, Sesia discloses and/or renders obvious "performing a channel estimation based on the first signal to obtain path parameter information of the first propagation path," as recited in Claim 1 under either Patent Owner's apparent interpretation or the plain and ordinary meaning of the term.

[1.4] sending the channel estimation that includes the path parameter information from the receiver to the transmitter via the first propagation path;

138. Sesia discloses and/or renders obvious "sending the channel estimation that includes the path parameter information from the receiver to the transmitter via the first propagation path."

139. As discussed above with respect to claim element **[1.3]**, Sesia discloses performing a channel estimate on a reference signal to obtain channel estimate information or path parameter information. After obtaining the path parameter information, Sesia discloses that the receiver then provides the path parameter information back to the transmitter as feedback (either explicit or implicit). Ex. 1003 at 662-63*; see e.g., id.* at 271-72.

140. Sesia discloses numerous examples where various types of path parameter information is transmitted to the eNodeB as feedback (either explicitly or implicitly) for subsequent scheduling and transmissions. For example, Sesia discloses that for downlink data transmissions in LTE, the eNodeB typically selects a modulation scheme and code rate depending on the downlink channel conditions. *Id.* at 215. In this example, Sesia discloses that the UE transmits a Channel Quality Indicator (CQI) as feedback to the eNodeB via an uplink, which is then used by the eNodeB for selecting a modulation scheme and/or code rate. *Id.* As another example, Sesia discloses that in the case of transmit beamforming and MIMO precoding, the receiver provides channel estimation information to the eNodeB through a limited feedback link. *Id.* at 263-64. Yet another example, Sesia discloses that the UE may help the eNodeB to derive beamforming precoding weights by sending PMI feedback to the eNodeB. *Id.* at 270-721.

141. As yet another example, Sesia discloses that the scheduling algorithms used by the eNodeB can make use of measurement information such as Channel State Information (CSI) and traffic measures (*e.g.*, volume and priority). *Id.* at 280. Sesia explains that this measurement information can be obtained by either direct measurements performed by the eNodeB or via feedback signaling from the UE. *Id.* at 280-81. As yet another example, Sesia discloses that in some instances, large-scale parameters are fixed, but the channel undergoes fast fading according to the motion of the UEs. *Id.* at 442. In this example, Sesia explains that the UEs may feedback channel state information about the instantaneous radio channel conditions and the eNodeB can schedule its transmissions accordingly. *Id.; see also id.* at 271, 272, 274, 348, 355.

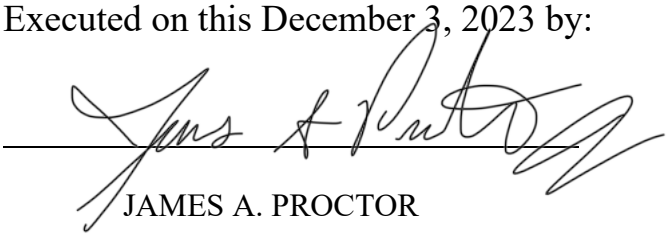
142. Each of these disclosures shows how channel estimation information (*i.e.*, path parameter information) is sent from the receiver to the transmitter after the receiver performs channel estimation to be utilized by the transmitter for subsequent transmissions. Further, Sesia clearly states that the "LTE specifications are designed to provide signaling necessary for the interoperability between the eNodeB and UEs so that the eNodeB can optimize the link adaptation." *Id.* at 215. As such, a POSITA would understand that the channel estimate information (the path parameter information) is necessarily sent back to the base stations, under the patent owner's interpretation.

143. Similar to as discussed above with respect to Figures C and D, after obtaining the channel estimate information or path parameter information, when the receiver transmits a signal (*i.e.*, the channel estimate information or path parameter information) to the transmitter, the signal is transmitted back along the propagation path that exists between the transmitter and the receiver.

144. Sesia further discloses the use of a time division duplexing (TDD) scheme which would transmit the uplink signal using the same frequencies and by the same path that the reference signals (the alleged first signal) were received on the downlink, "by reciprocity" according to the Patent Owners Infringement Contentions. *See* Ex. 1003 at 147, Figure 6.2; *see also* Ex. 1007 at 8 ("In at least TDD mode . . . the uplink transmission uses the same propagation path (***via reciprocity***) as the downlink transmission.") (emphasis added); Ex. 1009 at 8; Ex. 1010 at 8.

145. Accordingly, a POSITA would understand Sesia to disclose that, after obtaining the channel estimate information or path parameter information, the UE transmits a signal, including the channel estimate information to the eNodeB along the propagation path that exists between the transmitter and the receiver. Thus, Sesia discloses and/or renders obvious "sending the channel estimation that includes the path parameter information from the receiver to the transmitter via the first propagation path," as recited in Claim 1.

Executed on this December 3, 2023 by:



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